ELSEVIER

Ecological Modelling 78 (1995) 291–292

ECOLOGICAL MODELLING

Contents of *Ecological Modelling*, Vol. 78

VOL. 78 NOS. 1/2 MARCH 1995

Special Issue

Mathematical Modelling in Limnology

Papers presented at the First International Conference on Mathematical Modelling in Limnology, 4–7 November 1992, Innsbruck, Austria

Edited by E. Rott

Introduction 1

Messages from the meeting "Mathematical Modelling in Limnology" Innsbruck
M. Straškraba (České Budějovice, Czech Republic) 3

Application and abuse of statistical methods in mathematical modelling in limnology
H.-J. Krambeck (Plön, Germany) 7

A dynamic simulation model for the blooming of *Oscillatoria agardhii* in a monomictic lake
R. Jiménez Montealegre, J. Verreth, K. Steenbergen, J. Moed and M. Machiels (Wageningen, Nieuwersluis, Netherlands) 17

Some difficulties in modelling chlorophyll *a* evolution in a high rate algal pond ecosystem
F. Mesplé, C. Casellas, M. Troussellier and J. Bontoux (Montpellier, France) 25

pH simulation model in a mixed layer of a lacustrine environment (the case of Lake Orta)
M. Panizzuti and G. Tartari (Milan, Brugherio, Italy) 37

Data analysis or simulation model: a critical evaluation of some methods
O.F.R. Van Tongeren (Nieuwersluis, Netherlands) 51

Management of water cycle and energy flow for ecosystem control: the energy-transport-reaction (ETR) model
W. Ripl (Berlin, Germany) 61

Running water ecosystems – a bare field for modelling?
G. Bretschko (Lunz/See, Austria) 77

Fitting the dynamic model *PCLake* to a multi-lake survey through Bayesian Statistics
T. Aldenberg, J.H. Janse and P.R.G. Kramer (Bilthoven, Netherlands) 83

State of the art of ecological modelling in limnology
S.E. Jørgensen (Copenhagen, Denmark) 101

Modelling adaptive phytoplankton in a variable environment
J.A. Steel (Cork, Ireland) 117

A phytoplankton compartment model for a small meromictic lake with special reference to species-specific niches and long-term changes
E. Pipp and E. Rott (Innsbruck, Austria) 129

Using the past to predict the future: lake sediments and the modelling of limnological disturbance
N.J. Anderson (Copenhagen, Denmark) 149

VOL. 78 NO. 3 APRIL 1995

Ecosystem configurations consequent on the maximum respiration hypothesis
T. Washida (Wakayama, Japan) 173
Optimal size of predictive models
L. Håkanson (Uppsala, Sweden) 195
Computer simulation of the dynamics of a dune system
F. De Castro (Sevilla, Spain) 205
Modeling of one-dimensional spatial effects on the spread of gypsy moths
I. Christie, J.W. Wilder and J.J. Colbert (Morgantown, WV, USA) 219
Simulation of transpiration sensitivity to environmental changes for shrub (*Myrica cerifera*) thickets on a Virginia barrier island
G. Shao, H.H. Shugart (Charlottesville, VA, USA) and D.R. Young (Richmond, VA, USA) 235

Modelling of Geo-Biosphere Processes
Continental glaciation and nuclear fuel waste disposal: Canada's approach and assessment of the impact on nuclide transport through the biosphere
M.I. Sheppard, B.D. Amiro, P.A. Davis and R. Zach (Pinawa, Canada) 249
Time lags and emergent stability in morphogenic/pedogenic system models
J.D. Phillips (Greenville, NC, USA) 267
One-dimensional oxygen diffusion into soil with exponential respiration: analytical and numerical solutions
F.J. Cook (Canberra, ACT, Australia) 277

Book Reviews 285

Keyword Index 289
Author Index 290
Contents of *Ecological Modelling*, Volume 78 291